Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems	)	CC Docket No. 94-102
	)	
Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (GMPCS) Memorandum of Understanding and Arrangements; Petition of the National Telecommunications and Information Administration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band	)	IB Docket No. 99-67

REPORT AND ORDER AND SECOND FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: November 13, 2003 **Released: December 1, 2003**

Comment date: [45 days from publication in the Federal Register]
Reply Comment date: [75 days from publication in the Federal Register]

By the Commission: Chairman Powell, Commissioners Abernathy, Copps, Martin, and Adelstein issuing separate statements.

I. INTRODUCTION

1. In this Report and Order, we revise the scope of our enhanced 911 rules to clarify which technologies and services will be required to be capable of transmitting enhanced 911 information to public safety answering points (PSAP). As many citizens, elected representatives, and public safety personnel recognize, 911 service is critical to our Nation's ability to respond to a host of crises. Efforts by federal, state, and local government, along with the significant efforts by wireline and wireless service providers, have resulted in the nearly ubiquitous deployment of this life-saving service. While 911 service for wireline consumers has been in existence since 1965, wireless 911 service has been a requirement since 1996; and the requirement that wireless service providers begin to relay Phase II location information has been in place since 2001. Since the adoption of those rules, we find it very encouraging that over half of the more than 6000 public safety answering points (PSAPs) are capable of receiving Phase I data, and Phase II location information is now being provided by at least one wireless carrier in approximately 480 markets, covering over 1200 PSAPs.[1] While these data are encouraging, we recognize that there is a need for all stakeholders to do more.[2]

2. In this Report and Order, we specifically address the obligation of mobile satellite services, telematics services, multi-line telephone systems, resold and pre-paid service, and disposable phones to provide enhanced 911 capabilities. Our analysis includes a discussion of the four criteria we set out in the *E911 Scope NPRM*[3] and our understanding of whether the particular service meets those criteria as informed by the substantial record developed in the course of this proceeding. In addition, we base our determination on other criteria that may mitigate our need to impose a requirement on a particular service. As set forth in detail below, this Report and Order makes the following conclusions.

- Mobile satellite service (MSS) carriers that provide interconnected two-way voice service must establish call centers for the purpose of answering 911 emergency calls and forwarding these calls to an appropriate PSAP.

[1] *See* < http://wtbnt02g.fcc.gov/programs/e911/outdata.html>.

[2] In October 2003, the Commission organized its second Enhanced 911 Coordination Initiative. The initiative brought together all of the stakeholders that are needed to achieve full deployment of enhanced 911. It was an opportunity for the various groups to clarify their common goals and to provide an opportunity for the parties to coordinate their efforts for achieving full deployment of E911.

[3] *See* Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, IB Docket No. 99-67, *Further Notice of Proposed Rulemaking*, 17 FCC Rcd 25576 (2002), paras. 61-63 (*E911 Scope NPRM*).

- Telematics providers that offer a commercial wireless service may have E911 obligations and need to work with the underlying licensees to ensure that E911 requirements are met. Those providers that do not offer such services, while they do not have an obligation, should continue their efforts with industry and public safety stakeholders to implement advanced telematics safety capabilities.
- Although we will not adopt federal rules at this time requiring multi-line telephone systems (MLTS) operators to implement E911, the Commission expects that states will act expeditiously on this topic, and references the Model Legislation as a valuable guide. We also issue a *Second Further Notice of Proposed Rulemaking* to continue our consideration of this issue, and to ensure that we are in a position to take appropriate action should states fail to do so or should it otherwise be warranted. Additionally, the Commission will issue a public notice in a year to examine states' progress on implementing E911 in this area.
- Resold and pre-paid mobile wireless service providers have an independent obligation to comply with our 911 rules to the extent that the underlying licensee has deployed the technology necessary to deliver enhanced 911 service.
- We find it is unnecessary to place a separate obligation on manufacturers of disposable phones or personal data assistant that contain a voice service component because the obligation for ensuring access to enhanced 911 service is with the wireless service provider, and they are responsible for ensuring that the devices used with their service satisfy their 911 obligations.
- Automated maritime telecommunications systems (AMTS) are not required to comply with our rules because their service fails to meet the four criteria.

3. We believe that these decisions represent a balanced approach, which takes into consideration the expectations of consumers, the need to strengthen Americans' ability to access public safety in times of crisis, and the needs of entities offering these services to be able to compete in a competitive marketplace.

II. BACKGROUND

4. In 1994, the Commission initiated this proceeding by proposing to amend its rules to address issues raised by the provision of basic 911 and enhanced 911 services (enhanced 911 service) through certain telecommunications technologies.[4] The Commission initially sought comment on rules that would require certain mobile wireless licensees to ensure that their networks included features that would make enhanced 911 service available to their subscribers.[5] In addition, the Commission sought comment on amending its Part 68 rules to ensure the compatibility of private branch exchanges (PBXs) and other dispersed multi-line telephone systems with enhanced 911 services.[6]

5. On June 12, 1996, the Commission adopted an order requiring certain mobile wireless licensees to implement enhanced 911 service.[7] The *E911 First Report and Order* represented the

[4] *See generally* Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Notice of Proposed Rulemaking*, 9 FCC Rcd 6170 (1994).

[5] *See id.*

[6] *See id.* para 1.

[7] *See* Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 18676 (1996) (*E911 First Report and Order*).

culmination of efforts by the public safety community, the wireless telecommunications industry, and the Commission to improve the quality and reliability of 911 services to wireless customers nationwide. In the *E911 First Report and Order*, the Commission specified criteria for determining which licensees should be subject to its E911 requirements. It required compliance by those licensees (1) that offered real-time, two-way switched voice service, interconnected with the public switched network, either on a stand-alone basis or packaged with other telecommunications services; (2) whose customers clearly expected access to 911 and E911; (3) that competed with analog and broadband PCS providers; and (4) where it is technically and operationally feasible to provide enhanced 911 service.[8] Based on these criteria, the Commission determined that cellular licensees, broadband Personal Communications Service (PCS) licensees, and certain Specialized Mobile Radio (SMR) licensees,[9] collectively "covered carriers," would be required to meet basic and enhanced 911 service requirements for completing emergency calls, including forwarding all 911 calls without delay[10] and relaying a caller's Automatic Number Identification (ANI) and Automatic Location Information (ALI) to the appropriate Public Safety Answering Point (PSAP).[11] The Commission deferred a decision on whether to require compliance with its enhanced 911 rules by multi-line systems,[12] but has continued to refresh the record on multi-line systems.[13]

6. MSS. In addition, the Commission concluded that MSS should not be required, at that time, to provide appropriate access to emergency services (neither basic nor enhanced 911), given technological impediments and the coordination of international standards.[14] The Commission did indicate that it would consider adopting requirements at a later time for MSS, and urged MSS providers to continue to cooperate with public safety agencies in the development of mutually acceptable means of accessing emergency services.[15] The Commission, however, noted that it expected that MSS providers would eventually need to comply[16] and "provide appropriate access to emergency services. . . ."[17]

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[8] *Id.* at 18716-18, paras. 80-84.

[9] The Commission's E911 requirements covered only certain SMR licensees that held either licenses or authorizations to operate 800 MHz or 900 MHz service. *E911 First Report and Order*, 11 FCC Rcd at 18716-18, paras. 80-84. "Covered SMR" also included those 800/900 MHz SMR licensees that offered real-time, two-way switched voice service that was interconnected with the public switched network, either on a stand-alone basis or packaged with other telecommunications services. *Id.*

[10] *See E911 First Report and Order*, 11 FCC Rcd at 18692-97, paras. 29-42 (requiring covered carriers to transmit all 911 calls without subjecting them to any call validation procedures).

[11] *E911 First Report and Order*, 11 FCC Rcd at 18689-18722, paras. 24-91. Recognizing the challenges of implementation of E911 requirements, the Commission adopted a phased implementation plan for the covered carriers. Phase I implementation, which requires a covered carrier to transmit a 911 caller's call-back number and cell site to the appropriate PSAP, began on April 1, 1998. *See* 47 C.F.R. § 20.18(d). Phase II implementation, which requires a covered carrier to transmit a 911 caller's location information to the appropriate PSAP, began on October 1, 2001. *See* 47 C.F.R. § 20.18 (e), (h).

[12] *E911 First Report and Order*, 11 FCC Rcd at 18678 n.1.

[13] *See* Common Carrier Bureau Seeks Comment on Telident's Enhanced 911 Part 68 Recommendations, CC Docket No. 94-102, *Public Notice*, 11 FCC Rcd 22,475 (1996); *see also* Common Carrier Bureau Seeks Comment on Enhanced 911 Wireless Consensus Agreement, CC Docket No. 94-102, *Public Notice*, 12 FCC Rcd 24323 (1997).

[14] *See E911 First Report and Order*, 11 FCC Rcd at 18718, para. 83.

[15] *Id. See also Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, *Memorandum Opinion and Order*, 12 FCC Rcd 22665 at para. 88 (1997) (*Wireless E911 First Recon Order*).

[16] *See First Report and Order*, 11 FCC Rcd at 18718, para. 83.

[17] *Wireless E911 Recon Order*, 12 FCC Rcd at 22665, para. 88.

7. The Commission again addressed the subject of emergency-call service for MSS users in IB Docket No. 99-67, which primarily concerns adoption of rules to facilitate and promote international circulation of customer-operated satellite earth terminals used for Global Mobile Personal Communications by Satellite (GMPCS). In the initial Notice of Proposed Rulemaking in that proceeding, issued in 1999, the Commission also sought comment as to whether, in light of recent technological developments, it should require MSS providers to implement 911 features, subject to transitional measures to avert adverse impact on systems already in operation or at an advanced stage of development.[18] The Commission received 30 comments and 16 replies in response to the *GMPCS NPRM*, representing 34 entities. Of these, 18 parties filed comments and/or replies regarding the 911 issues.[19]

8. In the *Notice of Proposed Rulemaking* that proposed licensing and service rules for the 2 GHz MSS, the Commission inquired whether it should require licensees in this service to implement basic and/or enhanced 911 capabilities.[20] In the *2 GHz Report and Order*, the Commission acknowledged that 911 services can save lives and that significant strides had been made in developing location technology, but found that the information in the record was insufficient to support adoption of specific 911 requirements in the 2 GHz MSS service rules proceeding.[21] Therefore, the Commission decided that it would address issues concerning 911 requirements for 2 GHz MSS in the more general 911 inquiry conducted in the *GMPCS* proceeding.[22] To that end, the Commission directed the International Bureau to issue a public notice in the *GMPCS* proceeding to request additional information "regarding the technological, regulatory, and international aspects of Basic 911 and E911 for satellite services."[23] Following the December 2000 release of such public notice,[24] an informal meeting held between Bureau staff and several satellite licensees regarding currently used emergency call procedures provided additional information in this docket.[25]

9. **Enhanced 911 Scope Proceeding**. In 1999, Congress established 911 as the universal emergency service number.[26] Through the 911 Act, Congress sought to "facilitate the prompt

[18] Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (GMPCS) Memorandum of Understanding and Arrangements; Petition of the National Telecommunications and Information Administration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band, *Notice of Proposed Rulemaking*, 14 FCC Rcd 5871 (1999), at para. 98 (1999) (*GMPCS NPRM*).

[19] *See* Appendix A for a listing of the commenting parties.

[20] *See* Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, IB Docket No. 99-81, *Notice of Proposed Rulemaking*, 14 FCC Rcd 4843, 4885, para. 94 (1999) (*2 GHz NPRM*).

[21] *See* Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, IB Docket No. 99-81, *Report and Order*, 15 FCC Rcd 16127, 16185, para. 125 (2000) (*2 GHz Report and Order*).

[22] *Id.* While the Commission declined to adopt any 911 requirements for 2 GHz MSS, it did require that any handset used for 2 GHz MSS that does not have access to basic 911 or E911 clearly indicate the lack of these functions with a label or sticker affixed to the handsets. This labeling requirement remains in effect until the Commission adopts an order in the *GMPCS* proceeding. *Id.* at para. 126.

[23] *Id.* at para. 125.

[24] International Bureau Invites Further Comment Regarding Adoption of 911 Requirements for Satellite Services, IB Docket No. 99-67, *Public Notice*, 16 FCC Rcd 3780 (2000) (*Satellite 911 Public Notice*).

[25] Ex Parte Meeting in IB Docket No. 99-67, Memorandum from Arthur Lechtman, Satellite and Radiocommunication Division, International Bureau, Federal Communications Commission to William F. Caton, Acting Secretary, February 22, 2002 (*Feb. 22 Ex Parte Memo*).

[26] *See Wireless Communications and Public Safety Act of 1999*, Pub. L. No. 106-81, 113 Stat. 1286 (codified at 47 USC §§ 222, 251(e)) (*Wireless Communications and Public Safety Act of 1999*).

deployment . . . of a seamless, ubiquitous, and reliable end-to-end infrastructure for communications, including wireless communications, to meet the Nation's public safety . . . needs."[27]

10. In 2002, the Commission issued a Further Notice of Proposed Rulemaking (*E911 Scope NPRM*) that recognized the need to inquire about the scope of the obligation to provide access to 911 and enhanced 911 services.[28] The *E911 Scope NPRM* sought comment on whether providers of new and emerging services that are not currently required to provide enhanced 911 service should be required to do so. The *E911 Scope NPRM* sought comment, for example, on whether telematics providers should be required to connect their "hot button" calls directly to the appropriate PSAP.[29] The *E911 Scope NPRM* also sought comment on whether mobile satellite services should have an obligation and if so how that obligation should be fulfilled.[30]

11. In the *E911 Scope NPRM*, the Commission indicated that the record on MSS 911 issues justified proposing emergency service rules for satellite services. Therefore, we sought comment on a requirement that MSS carriers establish operator-staffed emergency service bureaus or call centers to answer customer 911 calls and forward them to appropriate local emergency personnel.[31] In light of our long-standing intention that MSS comply with E911 rules, we also sought comment on more detailed questions concerning how MSS should provide access to enhanced 911 service.[32] We also asked how integration of an ancillary terrestrial component (ATC) into an MSS network might affect the analysis of MSS deployment of E911 services, consistent with our rules.[33]

III. LEGAL AUTHORITY

12. In the *E911 Scope NPRM*, we asked for comment on the Commission's general authority to impose 911 and E911 requirements on the service providers. We noted, for example, that the Commission previously determined that that MSS would eventually be subject to 911 requirements, but had not imposed such requirements for other policy reasons. Still, the Commission has stated that "the public interest is likely to require that all CMRS real time two-way voice communication services provide reasonable and effective access to emergency services."[34] In light of the general criteria for basic and enhanced 911 compliance proposed in the *E911 Scope NPRM*, we invited comment on our legal authority to impose 911 requirements on the various service providers.[35] In each section of the *E911 Scope NPRM*, we sought comment on our legal authority based on sections 1, 4(i), and Title III of the Communications Act. We also sought comment on our jurisdiction based on the *Wireless Communications and Public Safety Act of 1999*."[36]

13. We find that Congress has given the Commission broad authority to deal with public safety concerns in wire and radio communications. In Section 1 of the Communications Act, Congress gave the

[27] *See Wireless Communications and Public Safety Act of 1999.*

[28] *See E911 Scope NPRM* , 17 FCC Rcd at 25601, paras. 61-63.

[29] *See E911 Scope NPRM*, 17 FCC Rcd at 25600-02, paras. 58-68.

[30] *See generally, E911 Scope NPRM*, 17 FCC Rcd at 25582-99, paras. 17-56 .

[31] *See E911 Scope NPRM*, 17 FCC Rcd at 25584-87, paras. 22-27.

[32] *See E911 Scope NPRM*, 17 FCC Rcd at 25587-96, paras. 28-48.

[33] *See E911 Scope NPRM*, 17 FCC Rcd at 25598-99, para. 55.

[34] *Wireless E911First Recon Order*, 12 FCC Rcd 22665 at para. 88.

[35] *E911 Scope NPRM* at para. 18.

[36] *See* 47 USC § 615 note.

Commission authority to regulate interstate wire and radio to make available "a rapid, efficient, Nation-wide, and world-wide wire radio and radio communication service with adequate facilities...for the purpose of *promoting safety of life and property* through the use of wire and radio communication."[37] In recognition of the value of 911 service to the promotion of that goal, Congress passed the *Wireless Communications and Public Safety Act of 1999*, which among other things made 9-1-1 the universal emergency telephone number for the nation.[38] Congress took this step because it had found that "improved public safety remains an important public health objective of Federal, State, and local governments and *substantially facilitates interstate and foreign commerce*."[39] In recognition of the role we are to play, along with the states and local governments, we find we have jurisdiction to adopt 911 rules for both wire and radio communications.

14. Moreover, in section 4(i) of the Communications Act, Congress made clear that it intended to give the Commission broad authority to act where its jurisdiction is appropriately asserted.[40] Section 4(i) provides the Commission authority to make such rules and regulations as may be necessary to fulfill its duties under the Act.[41] Similarly, section 303 reaffirms that authority specifically as it applies to radio communications.[42] It is, therefore, clear that Congress has, from the inception of the Federal Communications Commission through to the present day, recognized our role in ensuring that the public safety needs of Americans are met to the extent that those needs must be transmitted by wire or radio communications to emergency service personnel.

15. Finally, the definition of "wireless carrier" contained in the *Wireless Communications and Public Safety Act of 1999* leaves to the Commission the discretion to determine which wireless providers should be covered by its 911 rules. Pursuant to that definition, "wireless carriers" are providers of commercial mobile services, as well as providers of "any other radio communications services that the Federal Communications Commission requires to provide wireless 9-1-1 service."[43] In order to provide a basis for its decisions, the Commission developed the four criteria enumerated in the *E911 First Report and Order* and carried through to this proceeding. The underlying intent of those criteria is to only place E911 obligations on those services that are similar to CMRS or wireline services, which are clearly required to comply.

16. As detailed below, the decisions we make are consistent with the Congressional directive giving the Commission authority to apply 911 requirements to wireline services, commercial mobile services, and those services that offer substantially similar wireline and wireless alternatives. We, therefore, find that the requirements we adopt below are within the purview of the Commission's jurisdiction as granted by Congress.[44]

17. Finally, in the *E911 Scope NPRM*, we sought comment on the applicability of section 255 obligations to the services and devices included in that notice to ensure that, consistent with section 255, persons with disabilities would have access to emergency services through the services and devices involved. While no one provided comments, we reiterate here that under section 255 and the

[37] 47 USC § 151 (emphasis added).

[38] 47 USC 251(e).

[39] 47 USC § 615 note (emphasis added).

[40] 47 USC § 154(i).

[41] *Id.*

[42] 47 USC § 303.

[43] 47 USC § 615(b)(4).

[44] 47 USC §§ 151, 154, 201, 251, 303.

Commission's order adopting rules, telecommunications service providers and telecommunications equipment manufacturers have an obligation to ensure that their services and devices are accessible to and usable by persons with disabilities, if readily achievable.[45] We raise this point to make certain that the entities implicated in this Order, as well as all telecommunications equipment manufacturers and service providers, are aware of their other obligations in providing telecommunications services and devices to the public.

IV. SERVICE-BY-SERVICE DECISIONS

18. We next begin our analysis of the various services and devices that are currently offered to consumers. In the *E911 Scope NPRM*, we sought comment on four criteria to help inform our analysis of whether certain services should be subject to the E911 rules. We proposed analyzing each service based on whether: 1) it offers real-time, two-way voice service that is interconnected to the public switched network on either a stand-alone basis or packaged with other telecommunications services; 2) the customers using the service or device have a reasonable expectation of access to 911 and E911 services; 3) the service competes with traditional CMRS or wireline local exchange service; and 4) it is technically and operationally feasible for the service or device to support E911.[46]

19. While most commenters supported our use of these criteria for purposes of analysis, some urged the Commission to not make them *per se* determinative of the outcome.[47] As one commenter noted, however, the four criteria can be extremely useful in ensuring technological and competitive neutrality.[48] In the following sections, we use these criteria in our analysis, but we also consider other factors to inform our decision.

A. Mobile Satellite Service (MSS)

20. Introduction. In this section we address 911 services in connection with MSS systems. As noted above, the issue of MSS emergency call procedures has been under consideration in a number of proceedings, and we believe the record developed in response to the *E911 Scope NPRM and GMPCS Proceeding* justifies adopting certain requirements at this time. We conclude that all MSS carriers providing real-time, two-way, switched voice service that is interconnected with the public switched network must establish call centers to which all subscriber emergency calls are routed and then forwarded to an appropriate PSAP. We view MSS emergency call centers as the equivalent of basic 911 service for terrestrial wireless carriers.[49] The MSS call center requirement will remain effective until such time that an appropriate E911 implementation schedule can be determined. To that end, we refer a number of E911 technical issues associated with MSS to the rechartered Network Reliability and Interoperability Council (NRIC) for further study. Finally, in the Second Further Notice of Proposed Rulemaking portion of this item, we seek comment regarding transition periods for compliance with Section 20.18 of our rules for those MSS carriers that offer an ancillary terrestrial component. We also seek comment on potential

[45] 47 USC § 255. *See also* Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996, Access to Telecommunications Services, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities, WT Docket No. 96-198, Report and Order, 16 FCC Rcd 6417 (1999).

[46] *See E911 Scope NPRM*, 17 FCC Rcd at 25581 para. 13.

[47] *See* TIA comments at 5; T-Mobile comments at 2-4.

[48] *See* AT&T Wireless comments at 2.

[49] "Basic 911 service" in the terrestrial wireless context is the automatic transmission of all wireless 911 calls, without respect to call validation processes, to a PSAP, or where no PSAP has been designated, to a statewide default answering point or appropriate local emergency authority. *See* 47 C.F.R. § 20.18(b).